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PRESS TELECONFERENCE

PRESENT:

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PRESENTATIONS BY:

GENERAL MICHAEL KOSTELNIK,
DEPUTY ASSOCIATE ADMINISTRATOR,
INTERNATIONAL SPACE STATION AND SPACE SHUTTLE

AND

RON DITTEMORE,
SPACE SHUTTLE PROGRAM MANAGER

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P R O C E E D I N G S

MODERATOR: Today, we are happy to have with us General Mike Kostelnik, who is our deputy associate administrator for Space Station and Shuttle, and Mr. Ron Dittemore, who is the manager for the Space Shuttle program. They both will have an opening couple of words, a little introduction, and then we will get to Q&A's, and it is my understanding that both Bob and Doc have already given you the guidelines, one question, one follow-up, and we do have people on the line. Because of our timing, we did not have enough time to go to the telephones today, but we will be available later to answer any questions, not Mr. Kostelnik and Mr. Dittemore. They both have planes to catch, but you can call the newsroom and we will try to answer any follow-up questions that you might have later on today.

With that, there will be one question follow-up after we go through the opening statements.

General Kostelnik?

GENERAL KOSTELNIK: Well, good morning, everybody, and thanks for coming out and having this little sit-down with us this morning.

If you recall back early on when we lost Columbia and we had a chance to come and start talking about some of the activities within NASA, if you think back about that time period, one of the things that I kind of offered to you, that space has really more to do with the people involved with the Space program than it really does with the hardware, although there has been a lot of discussion, a little bit more on the various aspects of the Orbiter and the supporting infrastructure and many technical issues about it. The debate about and the discussion about people will be the more important part of that aspect.

Space is very glamorous, and it is easy to be overcome by the magnitude of the physical infrastructure required to achieve human space flight, but the people dimension of this is really the most important part. As important as the Orbiter is to the operation, the people in the program office are really the key to the success we have enjoyed with the program.

We are here on this important day to allow Ron a chance to give you a sense of his plans. I know it has been reported already in the various media over the weekend that Ron has chosen to leave NASA, and I wanted to put this

in context with you because this is not a recent decision.

When I came on board this summer, Ron had already been on the program for a long period of time. In fact, he is completing his fourth year in a very tough job, and from my military experience in program managers, typically we only keep program managers in these types of jobs in about this time period. Three or four years is usually enough for a leader to put his mark on a program and enough of a price to pay for the stresses and responsibilities that go along with such an important job.

So, during the fall, Ron and I had been in discussions. They were initiated by him that led to the sense that he thought this would be a good time, this next year, to make this transition, and we had been proceeding along those lines that that transition would have happened early this spring, and then, of course, all of those conversations and discussions and thoughts were put on hold with the loss of Columbia.

Ron, to his credit, much like other NASA individuals, I think I talked to you early on about Frank Buzzard. In fact, the night before Columbia, I retired Frank and presented him his Distinguished Service Award and

then return home only the next morning to experience the loss of Columbia and the next day, Mr. Buzzard calling and wanting to say how can I get back involved.

I think that you all know Mr. Buzzard rescinded his retirement, came back, and is actually serving as the head of the Columbia Task Force providing administrative support to the Gehman board, and that is indicative of the way people feel about this mission.

Ron, in the same way, put aside his plans and his thoughts for pursuing opportunities, because there really was a tough job to be done, and I think you all were as much as anybody a beneficiary of his expertise because early on, when there were a lot of questions, Ron Dittemore was the voice of the program for the things that were happening, trying to put in context what we had experienced, trying to put in context with how we were dealing with it.

I think most of you all will agree that Ron during that time period did an outstanding job for relaying some very complex and very technical thoughts in a way that the media could deal with, and I think a lot of the credit that NASA received early on for being open and being

forthright and being forthcoming with as much information as we had at the time, a lot of that, we owe to Ron in his role as the program manager. He did an outstanding job in that regard.

Well, the Gehman board has been on work. That work continues. As you know, we have right-sized our supporting infrastructure in the way of the NASA accident investigation team replacing the former Mishap Response Team, responding to the technical analysis and request of the Gehman board.

We are now into a period where a lot of good work has been done. I think as we move forward over the next month or so, we are expecting to get some results from the board. I think, as you know, we have already received two formal recommendations, and, of course, those activities are in work to deal with those recommendations. We expect to get more as the board settles on things that they decide. So we are reaching a point where sometime later this spring or early this summer, we are going to complete this analysis and get the final report card.

So we have reached now a point of equilibrium where the program office is nearing the end of its

supporting analysis, although there is more to continue. We have attained a comfort in kind of where we are going and meeting the needs of the board, and we expect to get the results from them reasonably soon.

So it did create an opportunity then for Ron to revisit his earlier thoughts and to think about giving the impact of Colombia, where would the right time be for him to make this transition that he had planned last year and, in fact, had now postponed for some amount of time, to his credit, to deal with the situation.

For a lot of reasons, he has elected to make this announcement now. So NASA from a headquarters perspective can do an orderly and an effective transition. This is a very big job. This program is the single largest program within NASA. I think the annual budget is on the order of $3.5 billion, and although the Station is a large program as well, this would be much more significant in terms of dollar value. It is a tough program management job that requires a lot of experience.

In fact, Ron spent more than 21 years at NASA doing a wide variety of jobs with the Shuttle and Station programs at the Johnson Space Center through all various

facets to acquire the depth and breadth of experience that has allowed him to do such a great job in this program. So replacing him is not going to be an easy task.

Again, to Ron's credit, he has given us in the way he has chosen to make this announcement a very graceful transition period to allow us to effectively replace him. This will allow us the time to get the results from the Gehman board. He is going to allow us the time to get the initial inputs from our return-to-flight team that we now have established under the leadership of Jim Halsell, supported by Ron and working with his people in the program office at the Johnson Space Center. So that will allow us an opportunity not only to find just the right individual we are looking for to replace Ron, and we will be looking both within the agency and on the national scene for just that type of talent with the requisite experience and depth and breadth of experience that can do this very important job.

The way that Ron has chosen to make this announcement will allow us the time to find this individual, to hire him, and to have some time in transition such that the lessons that Ron has learned over

his four years in the program can be invested with this new leader and then the new leader can then proceed on with the return-to-flight formal planning, and that will start the stage for a new administration to take the Space Shuttle into the next facet of his career.

So, with that as a background, I just want to say from an agency perspective, this is not something that we would have asked for or had wished. I think Ron has done an outstanding job, and I have worked with a lot of program managers, both now within NASA, and clearly my former life within the Department of Defense. I have been extremely expressed with his performance as a high-level, very credible and capable program manager.

In fact, not only is it my assessment, but I think that you all know most recently, Ron as individually recognized for his leadership and his program management by Aviation Week and the Laureate Award for the mission accomplishments during 2002. I think that speaks well of our assessment, although Columbia was, in fact, a tragedy of epic proportion that will be with us for a long time, and we will continue to live with the legacy of Columbia in the same way that we have with Challenger and learn from

that experience.

The people associated at NASA, I think, when this is all through, I will go back to what I said. It is that the people are doing a very tough job, a job that is not without its risk, and it takes a certain kind of individual day in and day out to step up to the challenge not only the big program management job, but one that has human life on the line. It is not very often that we ask people in this country to do this. Certainly, in the military with the ongoing activities overseas, it is a normal part of that business, but it is not a normal part of other businesses in this country.

So it is a unique role, and although we are sad to se Ron choose to go at this time, we know it is the right kind of thing for him if he chooses to do that, and I am going to wish him all the well as he pursues other opportunities downstream, and we are grateful not only for his 26 years of service and the last four years at the program management level, but over the past few months and in the things he will continue to do as we lead up to his departure in return-to-flight. We are very thankful for his continuing contributions in a very tough job.

So with that, I will offer Ron an opportunity to give you his perspective on his leave.

MR. DITTEMORE: Thanks, Mike, and thanks for those very kind words.

You know, jobs like these are difficult, and when you first come into a job like the program manager for Space Shuttle, you recognize that you have a tremendous opportunity. You get to work with some of the most capable and creative people ever gathered together in one place for one common cause, but you also recognize that you cannot do it forever.

Last summer, my wife and I and our family discussed the possibilities of the future and felt that at the time, it was over three years and approaching the fourth year in the program that it was time for us to consider other opportunities. That is when the dialogue began with Mike and others in the agency about the possibilities and potential of leaving early in the spring of 2003.

Mike has summarized, I think, those events accurately.

As the events unfolded in February, certainly all

personal plans had to take a back seat, and as the last two months have unfolded and now I see that we are starting to move into a different realm of our investigation, which is really we are starting to gear up on our return-to-flight activities, with the announcement of Jim Halsell as the leader of our return-to-flight planning team and our focus now in trying to gather the findings as they are distributed to us on a piecemeal basis by the board. We in the program with Jim Halsell and these interim findings by the board are starting to gear up and to perform the work necessary to return to flight as soon as we can. So there is a lot of activities that are starting to progress more and beyond the investigation.

As I looked at that, it seemed to me it was appropriate to talk with Mike again and pick this time to make a transition in leadership.

I think the coming months of return-to-flight activities and responding to recommendations and implementing corrective action is going to be a formative time frame for the Space Shuttle program, and it would be very important to have new leadership in place to have that foundation established.

As you move forward over the coming months building on that foundation from a new leader perspective, you are going to be that much more prepared, both from a leadership point of view and a team responding to that leadership, to move right into return-of-flight, resumption of flight activities, and then picking up the flight rate again.

I believe personally that this transition time frame would be extremely beneficial to allow this new leader the time to prepare, the time to respond to recommendations, the time to implement recommendations, to have a strong foundation, strong springboard to jump forward into the coming years. After speaking with Mike and others, we agreed that it was a good time to at least announce and allow this process to start going with a little bit more excitement, a little more visibility, and allow people the opportunity to transition into this idea of change in leadership.

It is not something where I am going to step out of the program instantaneously. In fact, that is not what I want to do. I want it to be an orderly transition. I want it to be a transition period where I can communicate

some of the lessons that I have learned over the past four years as program manager and over the last 10 years as a member of the Space Shuttle program office.

I believe this program is extremely important, and the leadership that does follow me needs to have the opportunity to get that strong foundation, what is absolutely critical in this program that we have talked to you about before, a clear understanding of the checks and balances that are necessary for us to operate safely, a clear understanding of the roles and responsibilities between centers, organizations, engineering, projects, program elements, safety emission assurance. All those types of organizations play their distinctive and unique role, and the new leadership needs to understand those carefully and soundly. This transition period will allow a new leadership to do that.

So it is with that spirit in mind that we come forward today and make this announcement.

MODERATOR: Thank you very much.

We will take some questions now. Frank?

QUESTIONER: Question for General Kostelnik. Frank [inaudible] with Aerospace America magazine.

General, are you considering moving Space Shuttle program management to Washington headquarters?

GENERAL KOSTELNIK: No. In fact, with the current management structure that we created with creating the new position that I am in last summer, that actually did provide the top-level, program-executive-officer-type approach that we really wanted in the management structure. It really would be a mistake, I think, to do the kind of program management that Ron has been doing in that leadership role from Washington. You need to have the program office resources, and you need the leader in the field.

So we are very comfortable with the organization we have, where you have a headquarters-type program executive officer function on the DOD role model, hosted here in Washington, working the relationships on the Hill with the oversight activities, providing the typical headquarters function of oversight, insight, mentoring, and working obviously the budget issues throughout the year, and leaving the details of the technical program management issues rightfully where the technical expertise lives.

We created a very powerful management information

system that provides the same information that Ron and his senior managers look at hear in the headquarters, and we are all dealing off the same source data. Ron and his replacement do the day-to-day program management activities which is heavily driven by experience base, and then allows us to provide the top cover here, to provide the budgetary support, and provide the added kind of thing.

So, unless something comes out formally from the gaming board that would offer or direct us to do something else, certainly we would consider those recommendations if something like that comes from the board.

Right now, I think we have a really good management relationship, and I think that during the past year, the creation of this position here and the small supporting staff and the creation of the management information system, it has really gone a long way towards improving the overall performance of the program.

It applies to International Space Station as well, and that relationship is working equally well.

MODERATOR: Let me remind yourselves, please, and who you represent.

Tracy?

QUESTIONER: Tracy [inaudible] with USA Today.

To Mr. Dittemore, board members had talked pretty extensively in the public hearings about the normalization of risk, and they are feeling that this may have taken place inside the Space Shuttle program. From your perspective, do you think that has happened?

MR. DITTEMORE: Well, I think I should not comment on board findings or even interim board findings.

It has been my role over the last two months to make sure the proper resources are applied to the investigation to support the board and all their activities, and I certainly don't want to comment or speculate on any of their findings at this point.

The findings will be the findings. We will respond to each one of the recommendations. We are anxious to do so. We are involved with them on a day-to-day basis. Our team is supporting their direction and their leadership, and it would be premature for me to comment, and I won't do so.

QUESTIONER: Ron, Frank Morring [ph] with Aviation Week.

Administrator O'Keefe has talked about a need for

greater tracking of trends in the Shuttle program. You are talking about passing along lessons learned to your successor. Do you have some lessons in this area that you might have thought about that you could pass along, how you can do a better job of tracking tends that might come up and bite you?

MR. DITTEMORE: Well, of course, tracking trends is in the eye of the beholder, and it is a difficult job because, if you look at the way our program is structured, we have, say, six or seven hardware elements in different locations. They have different databases of anomalies that may have happened either in manufacturing or in production or even processing.

We linked those databases together today, but perhaps that linkage is not as optimized as it could be, and we are going to have to take a look at that to do a better job of trending and understanding these events that occur. They just don't occur. There is a lot of things that happen in this program that are not very visible, and they happen at the manufacturing facility and they happen in processing. We deal with these events on a day-to-day basis.

Then what is more visible are what we call "in-flight anomalies." In-flight anomalies really are the peak of the pyramid, or ice berg if you want to think about it that way. They are relatively small in number. The large number of activities and events that we deal with are processing or development or manufacturing, and it is looking at that large number of events and understanding them and trending them, not only individual single elements, but across elements is what we are looking at, and I think that is what Mr. O'Keefe was noting and also that is what I would note as something that we should look at and see if we can improve on that.

QUESTIONER: You had a serious in-flight anomaly on STS-112. I guess I am asking you for the genius of hindsight, but would you have handled that foam strike 112 differently, knowing what you know today, and how would you have handled it differently?

MR. DITTEMORE: I don't know what you mean by "differently."

As a result of the foam strike in STS-112, there were actions that were given to the appropriate individuals, elements, to discuss that particular strike,

to understand its impact. There were actions to discuss both at our change-board within the program and at the level of one flight readiness review. So that scenario and repercussions of that scenario were briefed across the program and to senior agency management in the flight readiness review, and it was a healthy discussion. So I consider that an appropriate response to an event.

Now, whether or not we nailed everything down and pounded it flat, I think hindsight might call that into question, but at the time, we followed our processes and we investigated it as thoroughly as we thought we should at the time, and we will develop lessons learned from that activity.

MODERATOR: Gwenith?

QUESTIONER: Gwen [inaudible], Orlando Sentinel.

Are the other opportunities that you are planning to pursue in the aerospace industry, and if so, have you discussed or obtained a waiver from the Government to do that?

MR. DITTEMORE: I think my focus right now, Gwenith, is to do what I am doing today, and that is continue to manage this program and allow the agency time

to select a successor.

My focus is on this transition period, continuing to support the investigation process with the appropriate resources.

My priority is the work force, making sure the work force is working on the appropriate things and that we are concentrating on return-to-flight in addition to recommendations that will come from the board.

And the last thing on my priority list is my personal opportunities. I have invested most of my career in the human spaceflight business. I feel passionately about it. I think it is the right thing for us as a nation to do. I think it offers many side benefits to our society, and I think it is our destiny to do these types of thing. I would hope that as I consider opportunities that those opportunities would remain in human spaceflight, since there is where I feel emotionally attached and have that passion.

MODERATOR: Keith?

QUESTIONER: Keith [inaudible]. I want to ask a question of Mr. Dittemore.

About two years ago, there was a report that you

commissioned on possible fall once the USA's contract was supporting Shuttle, and it included a lot of movement of civil service responsibility out of Government into the private sector.

Given what happened two months ago, do you still go with that view? Do you think that maybe more civil service oversight is needed in the program?

MR. DITTEMORE: I think that as the findings of the board come forward, together with their findings and some of our own beliefs, we are going to formulate a plan to respond to whether or not we need more civil servants or not.

I have talked to Mike about that at length, and that is certainly going to be a subject that is on Mike's plate and the program's plate to understand whether or not we have the appropriate number of civil servants to support the program or whether or not we need to increase that to increase our oversight in the coming years.

MODERATOR: Eric?

QUESTIONER: Mr. Dittemore, Eric Pianne [ph] with The Washington Post.

Do you still feel, as you said shortly after the

accident, that there was really nothing NASA could have done to save the astronauts if you had known in advance about the extent of the damage to the left wing, and could you review for us your thinking at the time when the decision was made not to go ahead with a DOD orbit photography of the damage?

MR. DITTEMORE: I think the thing to concentrate on is that over the last two months, we have learned a lot about our system, about capabilities, and this is what our focus has been on and involved with over the past two months, not only with the board, but internally at NASA and within our program.

I believe that we will find some lessons learned out of all of these activities that we can correct. So our focus is not on looking at the past, but moving toward the future.

I believe that some people tend to look at the past and back into the future, but we need to look towards the future and press for it, and I believe that is the most important thing that we can do right now. As we do press forward, we need to take advantage of the lessons learned along the way. So my focus is not on what could or should

have happened or what I might have said. Our focus is what lessons learned are available to us and how are we going to implement corrections and how are we going to be better in the future.

QUESTIONER: Do you still subscribe to the notion that there really wasn't anything that could have been done?

MR. DITTEMORE: I think at the time, if you are asking me about that particular response, it was directed toward did I have a tile repair capability, and the answer is I don't have a tile repair capability on orbit, but that is one activity that we have extended an opportunity for our teams to reevaluate and we are pursuing the addition of a tile inspection repair capability for future flights.

That is being evaluated at this time, and we will determine whether or not that is a capability that will be implemented in the future.

QUESTIONER: Paul Reeser [ph] of the Associate Press.

In view of the preliminary and continuing findings of the investigation board, do you think that returning to flight in this calendar year is still a

realistic expectation?

GENERAL KOSTELNIK: Well, we are in the process of trying to understand what that will be at this time. Is it within the realm of possibility, the answer is yes, but it still depended on what the board results are. Of course, we have internal NASA analysis ongoing with the NASA team that is chaired by Randy Stone. So we are getting a NASA view of the analysis real time as we speak, and, of course, that information is provided then to the Gehman board and their independent analysis as well. Then some of that is played back.

So we really don't have anything more than the first two preliminary recommendations, and getting to the cause or the most probable cause will have a first-order effect on what the fix is necessary to be, and then all the other things, we will have to get done before we can return to flight.

We are certainly focused on that because we have the International Space Station on orbit. We have a crew of Expedition VI up there now, even watching those real time. In fact, in 30 minutes, I am going to get on a plane to Moscow. We are going to launch the replacement crew of

two, Lu and Malenchenko and they will bring down Expedition VI. So we are going to have a continuing need to support the International Space Station, although we are okay in the short term. Obviously reducing the crew from three to two is driven by our inability to resource the International Space Station in the way that only the Shuttle can do. So it is going to be very important over this next year to return the shuttle fleet to flight, just as expeditiously as we safely can.

So that is the focus of the return-to-flight activity. We have established the team. We have established the organizational construct I think I briefed you on that Jim Halsell will report to the Space Leadership Council here in Washington, co-chaired by Bill Ready and Dr. Mike Greenfield, and it is our expectation just as soon as we get more preliminary inputs from the board and/or the final recommendations, those will be folded into the return-to-flight team staffed in the field under Jim Halsell and then briefed in the area with a formal decision made by the Space Flight Leadership Council here in Washington.

I think, as you know, our roll-out goal in the

instruction to the return-to-flight team was focused on return to flight in the fall. Whether that is credible or not will be dependent on what the actual board findings are, but there is nothing we have seen to date in the preliminary indications that would lead us to believe that we could not return to flight within the next year. Of course, we are dependent on what the board ultimately tells us in their formal report and recommendations, and obviously, there will be a lot of oversight reviews after the results are formally published and announced. We would obviously defend the effectiveness and the safety of our return-to-flight plan.

QUESTIONER: I am Bob Hager from NBC.

Along that same line, what are the main activities of things that they are already looking into, the fixes on that return-to-flight team?

GENERAL KOSTELNIK: Well, you probably might recall that more than a month ago, based on our very initial experience, Ron had put out some actions to get some things going in the program because it was clear that there were some things that were going to need to be done. Whether or not foam turns out to be the cause of the event

or not, it was clear that we had experience in bipod foam loss. I think it was a question about the loss in 112, and there were some other examples of that in the past. It was clear that we really needed to fix that program.

So, early on, well in advance of any of the recommendations, Ron had started the program office to look at alternative ways of improving the insulation activities around this bipod foam area. So some of that work has been ongoing, and it will continue.

Clearly, in the early preliminary recommendations that we received from the Gehman board, one focused on the imaging of the vehicle in space, and clearly, there was a lot of discussion on whether we should or should not have image of the vehicle. It is still unclear whether those images would have shown something significant or not and unclear as to how that would have helped or not, but in the future, because it was recommended and you can not have too much information, in the future we will use all of the means at our disposal to get us as much information of the on-flight condition of the vehicle as we can. So, clearly, we are responding to that set of recommendations.

The second informal recommendation was improving

and enhancing our inspection of the RCC panels along the leading edge of the wing, and I think you know that there is an extensive amount of time ordered to these inspections. It is not as if these things were not being inspected, and the organizational major modification activity, the 18-month program where we refurbished the vehicles, I mean, those things are looked at in a credible depth. Certainly, they are looked at as well after each flight.

Could we do more? Can we do more? These are the kind of things we are looking at now to look at other types of electronic type or more sophisticated inspections that may reveal things that visual or the kinds of inspections we have been using may not have been as successful in detecting. So, clearly, we are taking with that recommendation and going back and revisiting our existing structures and processes and looking to ways that we can improve.

Will there be others that we will do? Most certainly. As we get more information from the Gehman board that focuses on new revelations, lack of robustness in some part of the Orbiter structure, lack of strength or

issues driven by reliability and age, it may require either more inspections or improvements downstream.

I will take you back to last fall when we rolled out the service life extension program, which was created precisely to deal with these issues that we were starting to experience with the flow liners and the beester [ph] balls and other activities. There is a lack of certainty about the impacts on age on aerospace structures. I mean, it really is a new technology that the military has done a lot of signature work in, in the last decade when they started flying aircraft well beyond their normal service lives. Part of that aging aircraft technology base is the kinds of things that we are actively looking at now and will continue into the service life extension program.

So there will be many more things that we will do that will not only be a part of the return-to-flight activity. Some of these recommendations may be things that we must accomplish before we return to flight, and, of course, that would be a first-order effect on when we can return to flight.

There will be other activities, and other recommendations are not necessarily the things that must be

completed before we return to flight, but things that if we are going to fly this thing throughout 2022, as called for by the Integrated Space Transportation Plan, we are going to have to make some investments in the vehicle in terms of reliability and maintainability and, again, some investments to understand more completely the effects of aging, and we will complete those activities in a more orderly fashion.

QUESTIONER: To follow, since you mentioned the photograph project, so if you did find a problem while it is up in orbit and that raises the question of what you do about it, I wonder is part of this, the team's work, consideration of escape or rescue or repairs in space, that kind of thing?

GENERAL KOSTELNIK: That is a good point, and that is a very important point because going back into 107, you will recall that 107 was a stand-alone science mission and a different inclination than International Space Station, not having a docking collar to go to the International Space Station and really not any capability of getting to the International Space Station.

When Ron talks about on-orbit repair, it is not

as if we didn't think that was a reasonable thing to look at. In fact, the program has looked at that extensively in its past. In the early days, the technology just wasn't there from a materiels standpoint, but also there wasn't the ability to do EVAs around the lower part of the vehicle and get some type of way for an astronaut on orbit in an EVA suit without some kind of supporting infrastructure to actually do a repair against this underside on orbit.

The thing that is going to be different potentially in the future is that for the near-term return-to-flight and for the next several shuttle missions, three shuttles that are remaining all have docking collars. They will all be flying assembly missions to the International Space Station, and it is the International Space Station itself that gives us this new opportunity to do things on orbit that we did not have on 107 on stand-alone flights. So it will allow us then to go back and look at the opportunity of can we use the combination of the arms that we have on station either between the Orbiter or the two arms that we will have on the International Space Station, can we provide an opportunity for an EVA astronaut docked with a shuttle docked at the

station to do on-orbit inspection.

We are exploring those geometries now as we speak to see what the opportunity to do that is, and if we can get on the lower part of the vehicle and do inspection, it provides us the same firm working base for the on-orbit astronauts then potentially to do repair. So we are going back and looking at the state-of-the-art materials to see.

So, the answer to your question, we are looking at all types of activities in the return-to-flight scenarios.

Not only will we do the things that the board recommends, but Ron and his team from the beginning have been looking at a wide variety of other kinds of things. I mean, go back and relook at all the processes, all the activities, all the reviews and look at all of these kinds of things one more time to see what added robustness, given that we have had this new insight, what can we add in to preclude this type of event in the future.

So a lot of things from operational scenarios are the kinds of things that the operators will look at to add robustness into our activities.

So I think a lot of these things, given the

future we now have, give us new challenges, but also new opportunities to deal with issues that we did not have on 107.

MODERATOR: Patty?

QUESTIONER: Patty Riner [ph] from the Houston Chronicle.

General, would you clarify? You said that you will hope that the shuttle will be flying again within the next year. Do you mean within this calendar year or a year from now?

GENERAL KOSTELNIK: NO, not necessarily. I think it is really hard to speculate on the precise date on when that can be.

Our goal for return-to-flight team was to return that into the fall. So we were looking at a November-December time frame.

There is a lot of work to be done, both to understand what the real problem is, which obviously will dictate the real timing, but then we have got to have time to do the fix and to review all the supporting reviewing structures and get the mind-set right that we are safe to go back to flight. That is going to take some time.

There is some significance with returning the shuttle fleet to the assembly job and the support job on the International Space Station because our margins for resupply on the station are very thin, realizing that the shuttle is the primary vehicle for moving water to the International Space Station.

It is interesting that water, the elements of hydrogen and oxygen, provide us the thrust to put us on orbit. It is one of the most basic primeval elements, and it is the single most element that is most important on orbit for the survivability of our crew. So there is a lot of energy and a lot of need for us to return to this important mission of human spaceflight and to get the shuttles back to flying as soon as we safely can.

Do I think flying within a year of the event is possible? Yes, I think it is possible. Will it be likely or not? We will have to wait and see. I think we will know a lot more about that over the next couple of months when we get the true insights from the Gehman board and what they determine is the cause or the most probable cause and the recommendations they make. Obviously, we will pay a great deal of attention to the very specific

recommendations that are required for us to return safely to flight. All of those things will be accomplished, and then NASA internally will have to satisfy itself. It is this getting into the minds of 20,000 people this right to go back and fly. That is going to be a very difficult and challenging job, but all of these things are oriented to returning to flight as soon as we expeditiously can.

QUESTIONER: General Kostelnik, what is the status of progress acceleration as you prepare to leave for Moscow today?

GENERAL KOSTELNIK: Well, Brian, we still are working those issues.

The good news is that the near-term use is on track. I think as we have closed out most of the technical issues, I think everything looks good for our launch on the 26th. The Russians did get a RODNIK tank into the next progress. The RODNIK tank was this modification I talked to you all about earlier about carrying more water to the station, and they are working very closely with Bill Gerstenmiaer and his ISS team to optimize the manifest for the June progress to keep things solid for supporting the two-man crew that we have.

We are still on track for the September progress, and I am not sure yet whether we are going to be accelerating that modestly or not, and, of course, the Soyuz use is still on track.

I do not have the latest. We are still working some of the financial issues associated with moving the last progress that we need. This is the one that is currently manifested in the January time frame, trying to move that modestly into the December or November time frame.

While we will be in pretty good shape for the supply elements, food and spares and most importantly water through the summer and the fall, our margins will be very thin in the November-December time frame, depending on what our utilization and conservation experience is with the two-man crew and the precise date at which we are able to work that progress.

Much of this, though, will be driven by what we get from the Gehman board because in the plans that talk about how we are going to resource the International Space Station and particularly calendar year '04, they are very much dependent on when the Space Shuttle fleet returns to

flight.

If we are able to return to flight in the January-February-March time frame, which hopefully is possible, that would take a lot of pressure off having resupply from the other vehicles, typically Soyuz or perhaps ATV kind of later in the years.

So, really, the plan is to set things solid with the near-term Soyuz transfer, the progress resupply in June. Hopefully, in the same time period, we will get some input from the Gehman board as to the cause of the Columbia incident, and then from that we will be able to put into effect our return-to-flight plan that will give us a proposed launch date. Then that will tell us what we really need to do with the international partnership to complete the resupport and the resupply effort in '04.

That will be an unknown, but I think it will come together both through the multilateral collateral control board and also heads of agency that will have the summer immediately following the release of the Gehman board report, and I think that new information will give us the resourcing needs and the challenge for the partnership to solve for '04.

QUESTIONER: Bill Lance, Washington Times.

First, for Ron, can you give me your thoughts on the Creator software modeling and Boeing's analysis?

Then for Mike, could you talk more about the process to replace Ron, who makes the appointment, are there people already you are looking at, and when would you hope to have them in place?

MR. DITTEMORE: Well, the Creator is the software tool that we use both prelaunch and during missions if required to understand the effects of debris on the Orbiter. That is really all I can comment on now.

Any changes to that program, any validation or further validation of the program, will be something I assume the board will address, and we will respond to those findings.

GENERAL KOSTELNIK: On the hiring of Ron's replacement, this is a good point, and it is important to understand, I think, the real program management chain because, when we inserted my position and created it, we really firmed up and crisped up the program management chain of command.

Just to refresh that with you, Ron and Bill

Gerstenmiaer both reported directly for me in the program management chain. I report directly to Bill Ready, the associate administrator for space flight, and he is my immediate boss, and his immediate boss is the Administrator. So this is the program management leadership chain of command for this activity.

So who will make that decision? The leadership above the program manager's position will be intimately involved in making that leadership choice.

Clearly, we will get recommendations from Ron, and I think that is reasonable for him to do, the candidates he thinks are reasonable. That is always an important piece of information because he has lived the experience for the last four years.

I was hired to do my job because I have a lot of broad experience in program management, and I have watched Ron and Bill Gerstenmiaer work within NASA and they have worked with a lot of program managers in the Department of Defense. So I have my own sense about what type of skills are required.

This is a very big job. Program managers are leaders first and foremost, and they required a tremendous

breadth and depth of experience, but most importantly, breadth of experience is probably the single most important facet.

Clearly, because we have this tight chain of command, Mr. Ready will have an important say in who this candidate is, as will ultimately the Administrator. This is not an individual you can just put an ad in the paper and have somebody with the talents show up. So you will probably not see us advertise "would somebody like to come and manage the program," but we will be looking at people within NASA and, more broadly, external to NASA and Government and industry that have the requisite skills, the leadership skills first and foremost, a generic breadth and depth of experience in program management disciplines, and some perhaps from past experiences with one or more NASA programs that are relevant.

We are in dialogue with people who have expressed interest. We are looking at others trying to generate interest, and although this won't be played out openly, just as soon as there is a choice made, there will be, the same as this case, a formal announcement made at some time in the future.

Of course, we are actively engaged in this activity as we speak because we do expect that over the next some number of days or weeks rather than months that we will start to get significant impacts from the Gehman board that are going to drive what the return-to-flight will be, and, therefore, the return-to-flight planning will follow fairly closely after we get not the final report, but some of the preliminary results that are provided in the same way that Admiral Gehman talked about early on and the same way that the FAA does accident things. When they find something that is important, they are not going to wait until the last minute to tell us about it. No, we will get it just as soon as they are confident that this is something that they are going to recommend. We have already got two. I expect more will be forthcoming in the near term, and eventually, those will set the stage for what the plan will be.

The final report will ultimately follow, and that will codify all of these kinds of things. So, clearly, we will need to find Ron's replacement in the near term, and you can expect that over the next month or so, we are going to be working this very hard, but it is a very tough job to

fill.

QUESTIONER: [Inaudible.]

GENERAL KOSTELNIK: No.

QUESTIONER: Nick Anderson with the L.A. times for General Kostelnik.

On the Space Station, you have scrambled to get this Soyuz mission in place and to retool it to help resupply the Space Station. Could you describe the challenges that you have faced as you retooled that mission?

And also, on the financial aspect of the resupply schedule, the Russians recently announced that they have accelerated some of their funding to help make that happen, and I am trying to understand why it is so difficult for the Europeans or the Japanese or somebody to either through an in-kind contribution or through a direct cash contribution help the Russians make up that money because it is a relatively small amount of money in the big scheme of things.

GENERAL KOSTELNIK: That is true.

Well, let me address the scrambling part first because, oddly enough, the Soyuz flight was part of the

planned manifest. So, really, scrambling hasn't been more complex, and it has taken us some time to announce it because we did have to adjust the crew from a taxi flight to a transfer flight. Obviously, that entails some leading-edge training. That obviously took some extra effort.

Because we are going from a three-person crew to a two-person crew, there are extra things that we have to do in terms of crew training in terms of medical procedures for both individuals in terms of being able to operate a Soyuz return vehicle. America needs to be able to do that as well as the Russians in an emergency. There are obviously some peculiar things we have had to take a look at because now we are going to a two-person crew rather than a three-person crew. So there have been some extra demands put on the training of that, but the vehicle and the fundings associated --

QUESTIONER: Training for the individuals?

GENERAL KOSTELNIK: Training for the individuals, yes. In the potential event they have to do a two-crew EVA, that would take special training. In the event of a medical issue, we have always got to be in a position where

a crew can take a de-capacitated, incapacitated crew member and get him or her into a pressure suit and get them into a Soyuz vehicle to depart.

In fact, a three-person crew has been working on those kind of training issues and sharing those results with Malenchenko and Lu as we speak. Again, it goes back to what I said about people. It is more about the people than it is about the spacecraft and the supporting infrastructures.

The changes to the manifest have been fairly modest. So that really hasn't been much of an issue. There will probably be more manifesting issues and changes associated with the June progress than there were on the Soyuz. So, actually, I would say that whole process has gone actually remarkably well.

In fact, as we are going into the launch on the 26th, we are actually in pretty good shape on both parts of the team.

For the second question, the partnership response and help has not reached its endpoint yet. We are still in those discussions, and in fact, all three of the partners, ESA, Canada, and Japan, have pro-offered some resources and

some proposed barters within the partnership to facilitate this activity.

And on their own, as you have mentioned, the Russians have accelerated some of their funding to help in this regard. So I guess where I would leave you with that is the near term looks pretty solid. The Soyuz is solid. The next two progress vehicles are solid. The Soyuz taxi flight, which will be another transfer flight in October, is solid.

The only issue that really remains is our ability to move this January progress and perhaps one of the other progresses in '04 forward modestly, and that, we will have some time. In fact, those discussions as we speak are still going on, and I expect over the next few weeks, we will get some resolution on those.

But most importantly in this, the shuttle fleet is still going to be a first-order effect on what the real needs are in '04. So I think although it is going to take a lot of work within the partnership, I am cautiously optimistic that the near term in the fall is going to go pretty well.

It is not without its challenges, but we are

still in a good posture for keeping the station crew.

QUESTIONER: If I could ask you a quick follow-up?

GENERAL KOSTELNIK: Yes.

QUESTIONER: What are the barters that have been offered?

GENERAL KOSTELNIK: Well, I think that is between the countries and still within their work. It wouldn't be fair for me to say.

Obviously, the ESA has a lot of activity ongoing with the Russians and will need some Russian support for their activities and bringing ATD online. So, clearly, there are some opportunities consistent with ESA's need for support on orbit of the ATVs.

There is always crew time for experiments that is of interest, and since the Russians control many of the vehicles going up there, the only other vehicle besides the Shuttle, Soyuz, there is always opportunities for exposing a country's national astronaut on those vehicles. So, clearly, there is interest in those areas as well.

So I expect there will be a continuing dialogue on those, and probably our plan for '04 will not become

finalized until we really get the Gehman board results and have an opportunity to do some staff work at the MCB level first and then have the formal heads of agency sometime early in the summer to take a look about where we really are given the shuttle fleet and what our ability to support in '04 is going to be.

MODERATOR: Larry?

QUESTIONER: Larry Wheeler from [inaudible] News Service.

Mr. Dittemore, was it a mistake to cut the shuttle work force as deeply as it was cut in the '90s?

MR. DITTEMORE: Well, are you talking civil servants?

QUESTIONER: Yes.

MR. DITTEMORE: I would say that is certainly has been a challenge for us to respond to the decreasing work force on the civil servant side. Along with that work force reduction was a transition of functions that were being performed by the Government and now being performed by the contractor community.

It remains to be seen whether that is the model that we wish to continue with in the future. I think that

is one of the thing that is on Mike's plate and on many others that will be discussed.

Certainly, we were able to implement that reduction safely. We have been flying shuttles safely. We did not take an increase in risk by doing so. We had to change some of our methodology, and we had to change the way we did business in our checks and balance, but we did so in response to those reductions.

It wasn't done overnight. It was done over a period of years, which gave us the ability to respond. We are changing some of our processes appropriately and maintaining the critical checks and balances.

So it presented challenges. We were able to deal with it. The question will be whether that is the level we want to stay with in the future.

MODERATOR: In that both of these gentlemen have planes to catch, I want to thank all of you for being with us today. Thank you very much.

[End of teleconference.]

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